Phase 1 Clinical Development of IO-202, A First-in-Class Antibody Targeting LILRB4, for the Treatment of AML with Monocytic Differentiation and CMML

Grant Award Details

Phase 1 Clinical Development of IO-202, A First-in-Class Antibody Targeting LILRB4, for the Treatment of AML with Monocytic Differentiation and CMML

Grant Type: Clinical Trial Stage Projects

Grant Number: CLIN2-12149

Investigator:

Name:	Joseph Woodard
Institution:	Immune-Onc Therapeutics
Type:	PI

Disease Focus: Acute Myeloid Leukemia , Blood Cancer , Cancer

Award Value: $6,000,000

Status: Pre-Active

Grant Application Details

Application Title: Phase 1 Clinical Development of IO-202, A First-in-Class Antibody Targeting LILRB4, for the Treatment of AML with Monocytic Differentiation and CMML

Public Abstract:

Therapeutic Candidate or Device

IO-202, a first-in-class antibody targeting leukocyte immunoglobulin-like receptor B4 (LILRB4), an immune inhibitory receptor

Indication

Acute myeloid leukemia (AML) with monocytic differentiation and chronic myelomonocytic leukemia (CMML)

Therapeutic Mechanism

IO-202 is the first T-cell activator for AML. Preclinical studies showed that IO-202 can convert a “don’t kill me” to “kill me” signal by activating T cell killing of AML cells and a “don’t find me” to “find me” signal by inhibiting leukemia infiltration.

Unmet Medical Need

AML is the most common acute leukemia in adults. Nearly 20,000 new cases are expected in the U.S. in 2020. Despite advances in treatment, less than 30 percent of AML patients are alive five years after initial diagnosis. CMML is a malignant hematopoietic stem cell disorder with dismal survival.

Project Objective

Proposed Phase 1 study completed

Major Proposed Activities

Conduct a Phase 1 study to evaluate IO-202 in relapsed/refractory patients with AML with monocytic differentiation and CMML.

Statement of Benefit to California:

Evaluating IO-202, a first-in-class therapeutic, in this Phase 1 study will generate a wealth of new scientific data on the biology of a novel target LILRB4, and provide a greater understanding of the pathology and clinical outcomes for AML with monocytic differentiation and CMML. If successful, the development of IO-202 will help prolong patient survival, improve patient quality of life, reduce the economic burden of AML and CMML and the personal burden on caregivers and relatives.

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